Serial No. 10/081,260

Amdt. dated February 9, 2005

Reply to Office Action of November 18, 2004

Amendments to the Claims:

The Listing of Claims below will replace all prior versions and listings of claims in the

application.

**Listing of Claims:** 

21. (Currently Amended) A system for delivery of services to at least one mobile client

capable of wireless communication comprising:

a plurality of communication/detection devices, each of said communication/detection devices

associated with a pre-determined physical space to detect the presence of said client when said

client is within said pre-determined physical space and to communicate information between said

client and said communication/detection device when said client is within an associated physical

space;

at least one server, each of said servers being programmed to host at least one service associated

with at least one physical space, said service being notified of a mobile client located in said

associated physical space;

an aggregate space defined by a set of at least two physical spaces, said at least one server setting

at least one service group to be available to the aggregate space; and

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at least one multiplexer in communication with at least one of the communication/detection devices and said at least one server, said multiplexer being configured to communicate with said

at least one server when a mobile client is within said at least one associated physical space,

wherein at least one service group including at least one service is associated with said physical space.

- 22. (Previously presented) The system of Claim 21 wherein said service independently generates content for delivery to said client.
- 23. (Previously presented) The system of Claim 21 wherein the multiplexer connects a server and an associated communication/detection device so that said client does not require information for a communication path to a server and a server does not require information of the communication path to said client.
- 24. (Previously presented) The system of Claim 21 wherein each of said communication/detection devices, the multiplexer and the server are each present at separate locations.
- 25 (Withdrawn) The system of Claim 21 wherein at least one service group including at least one service is associated with said physical space.

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- 26. (Withdrawn) The system of Claim 25 including an aggregate space defined by a set of at least two physical spaces, said server setting at least one service group to be available to the aggregate space.
- 27. (Currently Amended) The system of Claim 2621 wherein a higher-level aggregate space is defined as a set of aggregate spaces, the server setting at least one service group to be available to the higher-level aggregate space.
- 28. (Previously presented) The system of Claim 21 wherein said physical space is defined by multiple communication/detection devices and said multiplexer includes a control program to provide notification to at least one server when said client is within a said associated physical space by detection information provided to said multiplexer from said communication/detection devices.
- 29. (Previously presented) The system of Claim 21 wherein multiple servers are in communication with the multiplexer.
- 30. (Currently Amended) A method of providing services to a mobile client capable of wireless communication, the method comprising the steps of:

communicating information from said at least one communication/detection devices associated with a pre-determined physical space to detect the presence of said mobile client when said

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mobile client is within said physical space and to communicate information between the mobile

client and the communication/detection device when the mobile client is within said physical

space; and

combining a plurality of physical spaces in a set to define an aggregate space;

associating at least one service group to be available to said client determined to be present

within the aggregate space; and

communicating information between the communication/detection device and at least one server,

each of said servers being programmed to host at least one service associated with at least one

physical space, said service being notified of a mobile client located in said associated physical

space.

31. (Currently Amended) The method of Claim 30, wherein said services

independently generates content for delivery to said client.

32. (Currently Amended) The method of Claim 30 <u>further comprising the</u>

step of forming wherein said at least one service is formed into a service group.

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- 33. (Currently Amended) The method of Claim 30 <u>further comprising the</u>

  <u>step of wherein associating</u> at least one service group including at least one service is associated with said physical space.
- 34. (Withdrawn) The method of Claim 30 further comprising the steps of: combining a plurality of physical spaces in a set to define an aggregate space; and associating at least one service group to be available to said client determined to be present within the aggregate space.
- 35. (Currently Amended) The method of Claim 34<u>30</u> further comprising the steps of:

combining a plurality of aggregate spaces in a set to define a higher-level aggregate space; and associating at least one service group to be available to a client determined to be present within the higher-level aggregate space.

36. (Currently Amended) The method of Claim 34<u>30 further comprising the steps of associating wherein each of the physical spaces is associated with departments within a</u>

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place of business, and <u>associating</u> the aggregate space is associated with the entire place of business.

- 37. (Currently Amended) The method of Claim 35 <u>further comprising the</u>

  <u>steps of associating wherein-each</u> of the physical spaces is associated with departments within a place of business, <u>associating</u> the aggregate spaces is associated with the entire place of business, and <u>associating</u> the higher-level aggregate space is associated with a plurality of places of business in a chain.
- 38. (Currently Amended) A method of providing services to a mobile client capable of wireless communication, the method comprising the steps of:

communicating information from said at least one communication/detection devices associated with a pre-determined physical space to detect the presence of said mobile client when said mobile client is within said physical space and to communicate information between the mobile client and the communication/detection device when the mobile client is within said physical space;

providing at least one server having at least one proximity-based application stored thereon, the proximity-base application hosting at least one service generating content for delivery to said client when said client is within at least one associated physical space, said service predicated

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upon <u>an occurrence of higher level</u> proximity-based events determined by periodic measurement of the presence or absence of said client-within at least one associated physical space; and

providing at least one intermediary, the intermediary being in communication with the plurality of communication/detection devices and in communication with the server, the intermediary including a control program to provide notification to at least one server when said client is present within or absent from said at least one associated physical space by detection information provided by the plurality of communication/detection devices, the intermediary providing notification when said client is present within or absent from the associated physical space.

- 39. (Currently Amended) The method of Claim 38 wherein the higher-level proximity-based events comprise include an enter space proximity event, a still within space event, a temporarily left space event, a returned to space event, and an exited space event.
- 40. (Withdrawn) The method of Claim 38 wherein service content addressed from services hosted by the server to the client is transmitted to the intermediary for storage thereon and transmitted to the client upon request by the client.
- 41. (Currently Amended) A method of providing services to a mobile client capable of wireless communication, the method comprising the steps of:

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providing at least one server having at least one proximity-based application stored thereon, the

proximity-based application hosting at least one service generating content for delivery to said

client when said client is within a set of physical spaces including at least one physical space, the

service content predicated upon an occurrence of higher-level proximity-based events determined

by periodic measurement of the presence or absence said client within the set of physical spaces;

determining whether the mobile client is present within each of said physical spaces in the set of

physical spaces using a plurality of communication/detection devices that are associated with at

least one physical space, each communication/detection device providing notification when the

said client is within the associated physical space and to communicate information between the

mobile client and the communication/detection device when the mobile client is present within

the associated physical space; and

providing the information of whether the mobile client is present within each associated physical

space of the set of associated physical spaces to the server in a periodic manner to enable the

server to determine the higher-level proximity-based events.

42. (Previously Presented) The method of Claim 41 further including the step

of communicating content from services hosted by the server to the mobile client via at least one

of the communication/detection devices.

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43. (Previously Presented) The method of Claim 41 wherein the higher-level

proximity-based events include an enter space event, a still within space event, a temporarily left

space event, a returned to space event, and an exited space event.

44. (Currently Amended) A method of providing services to a mobile client

capable of wireless communication, the method comprising the steps of:

communicating information from said mobile client to at least one server when said mobile client

is within in a pre-determined physical space, the physical space associated with at least one of

said services and each of said servers being programmed to host at least one service associated

with at least one physical space; and

combining a plurality of physical spaces in a set to define an aggregate space;

associating at least one service group to be available to said client determined to be present

within the aggregate space; and

notifying said service of a mobile client located in said associated physical space and said service

generating content for delivery to said client.

45. (Previously Presented) The method of Claim 44 wherein at least one

service group including at least one service is associated with said physical space.

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46. (Withdrawn) The method of Claim 44, further comprising:

combining a plurality of physical spaces in a set to define an aggregate space; and

associating at least one service group to be available to said client determined to be present within the aggregate space.

47. (Previously Presented) The method of Claim 44, further comprising:

combining a plurality of aggregate spaces in a set to define a higher-level aggregate space; and

associating at least one service group to be available to a client determined to be present within the higher-level aggregate space.

- 48. (Currently Amended) The method of Claim 44, <u>further comprising the</u>

  <u>steps of associating wherein</u> each of the physical spaces is associated with departments within a place of business, and <u>associating</u> the aggregate space is associated with the entire place of business.
- 49. (Previously presented) The method of Claim 44 further comprising the steps of:

combining a plurality of aggregate spaces in a set to define a higher-level aggregate space; and

associating at least one service group to be available to a client determined to be present within the higher-level aggregate space.

50. (Currently Amended) A method of providing services to a mobile client capable of wireless communication, the method comprising the steps of:

providing at least one server having at least one proximity-based application stored thereon, the proximity-based application hosting at least one service generating content for delivery to said client when said client is within a set of physical spaces including at least one physical space, the service content predicated upon an occurrence of a higher-level-proximity-based events determined by periodic measurement of the presence or absence said client within the set of physical spaces;

determining whether the mobile client is present within each of said physical spaces in the set of physical spaces; and

providing the information of whether the mobile client is present within each associated physical space of the set of associated physical spaces to the server in a periodic manner to enable the server to determine the higher level-proximity-based events.